

Amendments to the claims (this listing of claims replaces all prior listings):

1. (Currently Amended) A method comprising:
monitoring a variable-rate data communication channel ~~during a non-transmission period~~
to determine its signal-to-noise ratio; and
~~adjusting the data transmission rate of the variable rate data communication channel~~
~~based on its signal-to-noise ratio; and~~
adjusting the data transmission rate of the variable rate data communication channel if the
signal-to-noise ratio of the communication channel cannot be determined for a defined period of
time.
2. (Original) The method of claim 1 wherein said adjusting the data transmission rate includes comparing the signal-to-noise ratio of the variable-rate data communication channel to a plurality of signal-to-noise ratio ranges.
3. (Original) The method of claim 2 wherein said adjusting the data transmission rate further includes selecting the signal-to-noise ratio range that encompasses the signal-to-noise ratio of the variable rate data communication channel.
4. (Original) The method of claim 3 wherein each signal-to-noise ratio range is associated with a specific data transmission rate, said adjusting the data transmission rate further includes setting the data transmission rate of the variable rate data communication channel to the specific data transmission rate associated with the selected signal-to-noise ratio range.
5. (Currently Amended) The method of claim 1 wherein the variable rate data communication channel is a bidirectional channel that includes a receive side for receiving data from a remote device and a transmit side for transmitting data to that remote device, said monitoring a variable-rate data communication channel includes determining a noise signal strength factor for the receive side of the variable-rate data communication channel during a non-transmission period.
6. (Original) The method of claim 5 wherein monitoring a variable-rate data communication channel includes determining a received signal strength factor for the receive side of the variable-rate data communication during a transmission period.

7. (Original) The method of claim 6 wherein monitoring a variable-rate data communication channel includes determining the difference between the received signal strength factor and the noise signal strength factor, wherein the difference is a data signal strength factor.

8. (Original) The method of claim 6 wherein monitoring a variable-rate data communication channel includes determining the signal-to-noise ratio of the variable-rate data communication channel from the data signal strength factor and the noise signal strength factor.

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9. (Currently Amended) The method of claim 1 ~~further comprising wherein~~ adjusting the data transmission rate of the variable rate data communication channel if the signal-to-noise ratio of the communication channel cannot be determined for a defined period of time includes iteratively adjusting the data transmission rate of the variable rate data communication channel if the signal-to-noise ratio of the communication channel cannot be determined for a defined period of time.

10. (Currently Amended) A data transmission rate control process comprising:
an SNR determination process for monitoring a variable-rate data communication channel during a non-transmission period to determine its signal-to-noise ratio; and
~~a transmission rate adjustment process, responsive to said SNR determination process, for adjusting the data transmission rate of said variable rate data communication channel based on its signal-to-noise ratio;~~

a rate determination process, responsive to said SNR determination process being unable to determine the signal-to-noise ratio of said variable-rate data communication channel for a defined period of time, for setting the data transmission rate of said variable rate data communication channel.

11. (Original) The data transmission rate control process of claim 10 wherein said transmission rate adjustment process includes an SNR comparison process for comparing the signal-to-noise ratio of the variable rate data communication channel to a plurality of signal-to-noise ratio ranges.

12. (Original) The data transmission rate control process of claim 11 wherein said transmission rate adjustment process further includes a range selection process for selecting a

signal-to-noise ratio range that encompasses the signal-to-noise ratio of the variable rate data communication channel.

13. (Original) The data transmission rate control process of claim 12 wherein each said signal-to-noise ratio range is associated with a specific data transmission rate, said transmission rate adjustment process further including a transmission rate selection process for setting the data transmission rate of said variable rate data communication channel to the specific data transmission rate associated with the selected signal-to-noise ratio range.

B1 14. (Previously Presented) The data transmission rate control process of claim 10 wherein said variable rate data communication channel is a bidirectional channel that includes a receive side for receiving data from a remote device and a transmit side for transmitting data to that remote device, said SNR determination process including a noise signal determination process for determining a noise signal strength factor for said receive side of said variable-rate data communication channel.

15. (Original) The data transmission rate control process of claim 14 wherein said SNR determination process includes a received signal determination process for determining a received signal strength factor for said receive side of said variable-rate data communication channel during a transmission period.

16. (Original) The data transmission rate control process of claim 15 wherein said SNR determination process includes a data signal determination process for determining the difference between said received signal strength factor and said noise signal strength factor, wherein said difference is a data signal strength factor.

17. (Original) The data transmission rate control process of claim 16 wherein said SNR determination process includes a SNR calculation process for determining said signal-to-noise ratio of said variable-rate data communication channel from said actual signal strength factor and said noise signal strength factor.

18. (Currently Amended) The data transmission rate control process of claim 10 further comprising wherein the rate determination process includes an iterative rate determination process, ~~responsive to said SNR determination process being unable to determine~~

~~the signal to noise ratio of said variable rate data communication channel for a defined period of time, for setting the data transmission rate of said variable rate data communication channel.~~

19. (Original) The data transmission rate control process of ~~claim 18~~ claim 10 wherein said variable-rate data communication channel can transmit data at a plurality of data transmission rates, said iterative rate determination process including an initial rate setting process for setting the data transmission rate of said variable-rate data communication channel to the data transmission rate that corresponds to the last-determined signal-to-noise ratio.

20. (Original) The data transmission rate control process of claim 19 wherein said iterative rate determination process includes:

a data transmission process for transmitting data packets, via said variable-rate data communication channel, to a remote device; and

a receipt confirmation process for determining if said data packets transmitted to said remote device were received by said remote device.

21. (Original) The data transmission rate control process of claim 20 wherein said iterative rate determination process includes a transmission ratio determination process for determining a transmission ratio, wherein said transmission ratio is indicative of the ratio of data packets received by the remote device versus data packets transmitted to the remote device.

22. (Original) The data transmission rate control process of claim 21 wherein said iterative rate determination process includes:

a transmission ratio comparison process for comparing said transmission ratio to a defined acceptability ratio range; and

a transmission rate adjustment process for adjusting the transmission rate of said variable-rate data communication channel in response to said transmission ratio being outside of said defined acceptability ratio range.

23. (Currently Amended) A computer program product residing on a computer readable medium having instructions stored thereon which, when executed by the processor, cause that processor to:

monitor a variable-rate data communication channel during a non-transmission period to determine its signal-to-noise ratio; and

~~adjust the data transmission rate of the variable-rate data communication channel based on its signal-to-noise ratio~~

adjust the data transmission rate of the variable-rate data communication channel if the signal-to-noise ratio of the communication channel cannot be determined for a defined period of time.

24. (Original) The computer program product of claim 23 wherein said computer readable medium is a read-only memory.

25. (Currently Amended) A data transmission rate control system comprising:
a first computing device including a first wireless communication system;

a second computing device including a second wireless communication system, wherein said first and second wireless communication systems form a variable rate data communication channel between said first and second computing devices;

wherein each said wireless communication system includes:

a SNR determination process for monitoring said variable-rate data communication channel during a non-transmission period to determine its signal-to-noise ratio; and

~~a transmission rate adjustment process, responsive to said SNR determination process, for adjusting the data transmission rate of said variable-rate data communication channel based on its signal-to-noise ratio~~

a rate determination process, responsive to said SNR determination process being unable to determine the signal-to-noise ratio of said variable-rate data communication channel for a defined period of time, for setting the data transmission rate of said variable rate data communication channel.

26. (Original) The data transmission rate control system of claim 25 wherein said transmission rate adjustment process includes:

a SNR comparison process for comparing the signal-to-noise ratio of said variable rate data communication channel to a plurality of signal-to-noise ratio ranges; and

a range selection process for selecting a signal-to-noise ratio range that encompasses the signal-to-noise ratio of said variable rate data communication channel.

27. (Original) The data transmission rate control system of claim 26 wherein each said signal-to-noise ratio range is associated with a specific data transmission rate, said transmission rate adjustment process further including a transmission rate selection process for setting the data transmission rate of said variable rate data communication channel to the specific data transmission rate associated with the selected signal-to-noise ratio range.

28. (Previously Presented) The data transmission rate control system of claim 27 wherein said variable rate data communication channel is a bidirectional channel that includes a receive side for receiving data from a remote device and a transmit side for transmitting data to that remote device, said SNR determination process including a noise signal determination process for determining a noise signal strength factor for said receive side of said variable-rate data communication channel.

29. (Original) The data transmission rate control system of claim 28 wherein said SNR determination process includes:

a received signal determination process for determining a received signal strength factor for said receive side of said variable-rate data communication channel during a transmission period; and

a data signal determination process for determining the difference between said received signal strength factor and said noise signal strength factor, wherein said difference is a data signal strength factor.

30. (Original) The data transmission rate control system of claim 29 wherein said SNR determination process includes an SNR calculation process for determining said signal-to-noise ratio of said variable-rate data communication channel from said actual signal strength factor and said noise signal strength factor.

31. (Currently Amended) A method comprising:

monitoring a variable-rate data bidirectional communication channel during a non-transmission period to determine its signal-to-noise ratio; the bidirectional channel including a receive side for receiving data from a remote device and a transmit side for transmitting data to that remote device, and

~~adjusting the data transmission rate of the variable rate data communication channel
based on its signal-to-noise ratio~~

adjusting the data transmission rate of the variable rate data communication channel if the
signal-to-noise ratio of the communication channel cannot be determined.

32. (Previously Presented) A method comprising:

monitoring a variable-rate data communication channel during a non-transmission period
to determine its signal-to-noise ratio; and

iteratively adjusting the data transmission rate of the variable rate data communication
channel if the signal-to-noise ratio of the channel cannot be determined for a defined period of
time.

33. (Previously Presented) The method of claim 32 wherein monitoring a variable-rate
data communication channel includes determining a received signal strength factor for the
receive side of the variable-rate data communication during a transmission period.

34. (New) The method of claim 32 further comprising adjusting the data transmission
rate of the variable rate data communication channel based on its signal-to-noise ratio if the
signal-to-noise ratio of the channel can be determined.

35. (New) The method of claim 34 wherein said adjusting the data transmission rate
includes comparing the signal-to-noise ratio of the variable-rate data communication channel to a
plurality of signal-to-noise ratio ranges.

36. (New) A method comprising:

monitoring a variable-rate data communication channel to determine its signal-to-noise
ratio; and

adjusting the data transmission rate of the variable rate data communication channel if the
signal-to-noise ratio of the communication channel cannot be monitored for a defined period of
time.

37. (New) The method of claim 1 further comprising adjusting the data transmission
rate of the variable rate data communication channel based on its signal-to-noise ratio:

38. (New) The process of claim 10 further comprising a transmission rate adjustment process, responsive to said SNR determination process, for adjusting the data transmission rate of said variable rate data communication channel based on its signal-to-noise ratio.

39. (New) The computer program product of claim 23 further comprising instructions to cause the machine to adjust the data transmission rate of the variable rate data communication channel based on its signal-to-noise ratio.

40. (New) The control system of claim 25 further comprising a transmission rate adjustment process, responsive to said SNR determination process, for adjusting the data transmission rate of said variable rate data communication channel based on its signal-to-noise ratio.

41. (New) The method of claim 31 further comprising adjusting the data transmission rate of the variable rate data communication channel based on its signal-to-noise ratio.
